UNITED STATES PATENT AND TRADEMARK OFFICE

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10/706,124	11/12/2003	Kaoru Okumura	M61.12-0548	6217

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WESTMAN CHAMPLIN (MICROSOFT CORPORATION)
SUITE 1400
900 SECOND AVENUE SOUTH
MINNEAPOLIS, MN 55402-3244

EXAMINER
LOVEL, KIMBERLY M

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _12 March 2008_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-8,10 and 20-28_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-8,10 and 20-28_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

1.   This communication is in response to the Amendment filed 12 March 2008.

2.   Claims 1-8, 10 and 20-28 are currently pending. Claims 9 and 11-19 have been

cancelled. In the Amendment filed 12 March 2008, none of the claims were amended.

This action is made Final.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1-3, 6-8, 10 and 20-28 are rejected under 35 U.S.C. 103(a) as being

unpatentable over US PGPub 2005/0027691 to Brin et al (hereafter Brin) in view of

US PGPub 2003/0097252 to Mackie (hereafter Mackie).

        Referring to claim 1, Brin discloses a method for making additional terms

available to a searching process (see [0011]), the method comprising:

        receiving an input string that incorporates a plurality of characters and at least

two intervening spaces, wherein the input string includes N words [car repair help] (see

[0031]);

providing the input string and the additional terms to the search process [one or more words related to at least one of the original terms 41 could be disjunctively added to the original query 40] (see [0033]); and

displaying a search result [results are generated for display] (see [0027]) identified by the search process as being related to at least one of the additional terms [the search engine 21 would then execute the expanded query using the broadened list of terms] (see [0033], lines 1-5).

While Brin discloses the limitations of an input string containing N words and providing additional terms by the formation of compound terms (see [0039]), Brin fails to explicitly disclose the further limitations of N being greater than 3 and concatenating the plurality of characters to form additional terms, wherein the additional terms are (N-1)(N/2) combinations of words selected from the N words based on word adjacency and providing additional terms by the formation of compound terms. The background of Mackie discloses the further limitations of concatenating the plurality of characters to form additional terms, wherein the additional terms are (N-1)(N/2) [this formula provides every combination available through concatenation of adjacent words] combinations of words selected from the N words based on word adjacency [many languages, such as German, permit the construction of novel compound words by a process of iterative concatenation] (see [0004], lines 1-3).

It would have been obvious at the time of the invention to combine the technique of Mackie to form the compound terms of Brin. One would have been motivated to do so in order to provide an active and efficient way of creating new words, since storing all

meaningful compounds in a dictionary base is, quite simply, impossible (Mackie: see [0006], lines 7-11).

The combination of Mackie and Brin (hereafter Mackie/Brin) fails to explicitly disclose the further limitation of an input string containing N words. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize a string consisting of more than 3 words since it is well known that German compound words can be created from more than 3 words.

Referring to claim 2, Mackie/Brin discloses the method of claim 1, wherein, receiving an input string comprises receiving an input string that incorporates a first set of characters separated by a space from a second set of characters [Abschreibung moglichkeiten]; and concatenating comprises concatenating the first and second sets of characters [Abschreibungsmoglichkeiten] (Mackie: see [0005]).

Referring to claim 3, Mackie/Brin discloses the method of claim 2, wherein at least one of the first and second sets of characters are each is a single character [s and moglichkeiten] (Mackie: see [0005]).

Referring to claim 6, Mackie/Brin discloses the method of claim 1, and further comprising suppressing at least one of the additional terms (Brin: see [0035]).

Referring to claim 7, Mackie/Brin discloses the method of claim 1, wherein the method is executed upon a client system (Brin: see [0024]).

Referring to claim 8, Mackie/Brin discloses the method of claim 1, wherein the method is executed upon a server (Brin: see [0024]).

Referring to claim 10, Mackie/Brin discloses the method of claim 1, wherein the input string is a search string [search query 40] (Brin: see [0031], lines 1-6).

Referring to claim 20, Brin discloses a method for providing additional search terms to a search process (see [0011]), the method comprising:

receiving an input string that incorporates a plurality of characters and at least two intervening spaces, wherein the input string includes N words [car repair help] (see [0031]);

providing the input string and at least one of the additional terms to the search process [one or more words related to at least one of the original terms 41 could be disjunctively added to the original query 40] (see [0033]);

generating a search result as a function of at least one of the additional terms [the search engine 21 would then execute the expanded query using the broadened list of terms] (see [0033], lines 1-5); and

providing an output indicative of the search result [results are generated for display] (see [0027]).

While Brin discloses the limitations of an input string containing N words and providing additional terms by the formation of compound terms (see [0039]), Brin fails to explicitly disclose the further limitations of N being greater than 3 and concatenating the plurality of characters to form additional terms, wherein the additional terms are (N-1)(N/2) combinations of words selected from the N words based on word adjacency and providing additional terms by the formation of compound terms. The background of Mackie discloses the further limitations of concatenating the plurality of characters to

form additional terms, wherein the additional terms are (N-1)(N/2) [this formula provides

every combination available through concatenation of adjacent words] combinations of

words selected from the N words based on word adjacency [many languages, such as

German, permit the construction of novel compound words by a process of iterative

concatenation] (see [0004], lines 1-3).

It would have been obvious at the time of the invention to combine the technique

of Mackie to form the compound terms of Brin. One would have been motivated to do

so in order to provide an active and efficient way of creating new words, since storing all

meaningful compounds in a dictionary base is, quite simply, impossible (Mackie: see

[0006], lines 7-11).

The combination of Mackie and Brin (hereafter Mackie/Brin) fails to explicitly

disclose the further limitation of an input string containing N words. It would have been

obvious to one of ordinary skill in the art at the time of the invention to utilize a string

consisting of more than 3 words since it is well known that German compound words

can be created from more than 3 words.

Referring to claim 21, Mackie/Brin discloses the method of claim 20, further

comprising excluding at least one of the additional terms from the search process (Brin:

see [0035]).

Referring to claim 22, Mackie/Brin discloses the method of claim 20 wherein at

least one of the additional search terms comprises exactly two of the N words and at

least one of the additional search terms comprises exactly three of the N words [one or

more words related to at least one of the original terms 41 could be disjunctively added

to the original query 40] (Brin: see [0033]).   While Mackie/Brin fails to explicitly disclose

supplying a two word combination and a three word combination, it would have been

obvious to do this since when creating a list of all possible variations, these exist in the

list. One would have been motivated to do so in order to provide accurate search

results.

Referring to claim 23, Mackie/Brin discloses the method of claim 22 wherein at

least one of the additional search terms comprises exactly four of the N words [one or

more words related to at least one of the original terms 41 could be disjunctively added

to the original query 40] (Brin: see [0033]).   While Mackie/Brin fails to explicitly disclose

supplying a four word combination, it would have been obvious to do this since when

creating a list of all possible variations, these exist in the list. One would have been

motivated to do so in order to provide accurate search results.

Referring to claim 24, Mackie/Brin discloses the method of claim 20 wherein

providing at least one of the additional search terms to the search process comprises

providing less than all of the additional search terms to the search process (Brin: see

[0035]).

Referring to claim 25, Mackie/Brin discloses the method of claim 20 wherein

providing an output comprises displaying [results are generated for display] (Brin: see

[0027]).

Referring to claim 26, Brin discloses a method for making additional terms

available to a searching process (see [0011]), the method comprising:

receiving an input string that incorporates a plurality of characters and at least

two intervening spaces, wherein the input string includes N words [car repair help] (see

[0031]);

providing the input string and at least one of the additional terms to the search

process [one or more words related to at least one of the original terms 41 could be

disjunctively added to the original query 40] (see [0033]);

generating a search result as a function of at least one of the additional terms

[the search engine 21 would then execute the expanded query using the broadened list

of terms] (see [0033], lines 1-5); and

providing an output indicative of the search result [results are generated for

display] (see [0027]).

While Brin discloses the limitations of an input string containing N words and

providing additional terms by the formation of compound terms (see [0039]), Brin fails to

explicitly disclose the further limitations of N being greater than 3 and generating (N-

1)(N/2) additional search terms, wherein each of the additional search terms is formed

by eliminating some or all of the intervening spaces, and wherein each additional term is

a combination of words in the N words that are adjacent to one another. The

background of Mackie discloses the further limitation generating (N-1)(N/2) [this formula

provides every combination available through concatenation of adjacent words]

additional search terms, wherein each of the additional search terms is formed by

eliminating some or all of the intervening spaces, and wherein each additional term is a

combination of words in the N words that are adjacent to one another [many languages,

such as German, permit the construction of novel compound words by a process of iterative concatenation] (see [0004], lines 1-3).

It would have been obvious at the time of the invention to combine the technique of Mackie to form the compound terms of Brin. One would have been motivated to do so in order to provide an active and efficient way of creating new words, since storing all meaningful compounds in a dictionary base is, quite simply, impossible (Mackie: see [0006], lines 7-11).

The combination of Mackie and Brin (hereafter Mackie/Brin) fails to explicitly disclose the further limitation of an input string containing N words. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize a string consisting of more than 3 words since it is well known that German compound words can be created from more than 3 words.

Referring to claim 27, Mackie/Brin discloses the method of claim 26 wherein at least one of the additional search terms includes exactly two of the N words and at least one of the additional search terms includes exactly three of the N words [one or more words related to at least one of the original terms 41 could be disjunctively added to the original query 40] (see [0033]). While Mackie/Brin fails to explicitly disclose supplying a two word combination and a three word combination, it would have been obvious to do this since when creating a list of all possible variations, these exist in the list. One would have been motivated to do so in order to provide accurate search results.

Referring to claim 28, Mackie/Brin discloses the method of claim 26 further

comprising excluding at least one of the additional terms from the search process (Brin:

see [0035]).

5.   **Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable**

over US PGPub 2005/0027691 to Brin et al in view of US PGPub 2003/0097252 to

Mackie as applied to claim 1 above, and further in view of US PGPub

2003/0088547 to Hammond (hereafter Hammond).

Referring to claim 4, Mackie/Brin fails to explicitly disclose the further limitation

of preprocessing the input string. Hammond discloses expanding an input query (see

abstract), including the further limitation of preprocessing the input string [parsing out

extraneous information] (see [0039]).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to apply the step disclosed by Hammond of preprocessing the input string to

the search string of Mackie/Brin. One would have been motivated to do so since it is

well known that preprocessing increases the capability of providing accurate search

results.

Referring to claim 5, the combination of Mackie/Brin and Hammond discloses

the method of claim 4, wherein preprocessing includes removing at least one

extraneous character from the input string (Hammond: see [0039], lines 4-7).

Response to Arguments

6.   Applicant's arguments filed in regards to the prior art rejections have been fully

considered but they are not persuasive.

The applicant argue that the examiner fails to explain how the Mackie Reference

and the Brin reference would be combined. To further explain, the Brin reference

teaches a plurality of ways in which a query can be expanded. Concatenation as taught

by Mackie is just another way that is well-known in the art to for alternate versions of a

phrase. Therefore, it would have been obvious to utilize Mackie's concept of

concatenation to form variations of the terms in Brin.

The applicant also argues that Mackie does not focus on concatenation. Mackie

states that in many langages, compound words are created through the process of

concatenation (see [0004]). Furthermore, if the ability exists to split a compound word,

then a program has to be able to determine the individual terms. If a program has this

capability, then it would also have the capability of created compound words.

Conclusion

7.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KIMBERLY LOVEL whose telephone number is (571)272-2750. The examiner can normally be reached on 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John R. Cottingham/   Kimberly Lovel
Supervisory Patent Examiner, Art Unit 2167   Examiner
                                                        Art Unit 2167

17 July 2008
kml